REMARKS

Claims 1 through 54 are pending in the application. Claims 23, 28 and 43 are amended, while claims 52 through 54 are newly added. The allowance of claims 1 through 15 is noted with appreciation.

Rejection of Claims 1-34 under 35 U.S.C. § 251 and Doctrine of Recapture

Claims 16-51 were rejected under 35 U.S.C. §251 and the Doctrine of reissue recapture, based upon the Examiner's assertion that these claims constitute "an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue is based." Applicant respectfully traverses this rejection for the following reasons.

First, the Examiner asserts that,

> "[a] broadening aspect is present in the reissue, which was not present in the application for patent. The record of the application for the patent shows that the broadening aspect (in the reissue) relates to subject matter that Applicant previously surrendered during the prosecution of the application. Accordingly, the narrow scope of the claims in the patent was not an error within the meaning of 35 U.S.C. §251, and the broader scope surrendered in the application for the patent cannot be recaptured by the filing of the present reissue application."

The Examiner's assertion is an incorrect application of 35 U.S.C. §251, that raises several issues. Examination of these issues reveals an absence of justification for the Examiner's application of 35 U.S.C. §251 to support this rejection.

Second, in the application of 35 U.S.C. §251 to support this rejection of Applicant's reissue claims 16-51, the Examiner has argued that:

> "In claims 16-51, Applicant has omitted the language 'skipping a remaining data address in said different recording locations of said data track, when any one data address mark recorded in said different recording locations is normally detected 'and' said transducer head not utilizing a remaining data address mark recorded in said different recording locations of said data track, when a data address mark recorded in a different data address regions is detected'. This language specifically added to claims in the original patent to place it in condition for allowance".

The two features of claims 1-15 quoted by the Examiner described the method steps accompanying the "processing [of] a data address mark" as defined by method claims 1 and 7, and there accompanying dependent claims 2-6 and 8-10, and the operation of the transducer head assembly 6 as controlled by microcontroller 14, as is expressly defined by apparatus claim 11, together with its dependent claims 12-15. In contradistinction, Applicant's rejected claims 16-51 define different aspects and features of Applicant's invention, with apparatus claims directed to either the recording medium as defined by claims 20-23, 38, 39 or 40, or directed to the disk drive device as defined by claims 24, 25, 32-34, 41, 42, 43, 50, 51 and newly presented reissue claim 52. The two features of method claims 1 and 7 cited by the Examiner of "skipping a remaining data address" and the functional operational feature of claim 11 with "said transducer head not utilizing a remaining data address mark" cited by the Examiner have nothing to do with Applicant's reissue claims directed to either the recording medium or to the disk drive device itself. Either feature of "skipping a remaining address" or "said transducer head not utilizing a remaining data address mark" could not lawfully be incorporated into Applicant's apparatus claims directed to either the recording medium or the disk drive device, without creating an aggregation impermissible under the second paragraph

of 35 U.S.C. §112. In short, the subject matter of method claims 1 and 7 and apparatus claim 11 of either "skipping a remaining data address" or "not utilizing a remaining data address mark" are not aspects of Applicant's reissue claims directed to the recording medium or of Applicant's reissue claims defining the disk drive device.

Turning to the reissue method claims, Applicant has presented three general categories of processes: one, a method of providing a data block defined by claims 16-19 and 35-37, and newly presented independent claims 53 and 54; two, a method of reading a data block defined by claims 26-30, 44, 45 and 46; and three, a method of preparing a memory disk defined by independent claims 31 and 47. The features of amended patent method claims 1 and 7 define "forming and processing a data address mark", while Applicant's first group of reissue process claims 16-19 and 35-37, which define a method of providing a data block, describe the step of "writing", rather than the step of "processing a data address mark" as defined by amended patent claims 1 and 7. The second group of reissue method claims 26-30, 44, 45 and 46 define a method of reading a data block, as opposed to "processing a data address mark" as defined by amended patent process claims 1 and 7 cited by the Examiner. Applicant's third group of reissue process claims, namely independent process claims 31 and 47 describe a method of preparing memory disk with one or more recording steps, as opposed to the "processing a data address mark" defined by amended patent process claims 1 and 7 cited by the Examiner.

In summary, Applicant's reissue claims are directed to different apparatus and to different methods than those defined by independent amended patent process claims 1 and 7, or independent amended disk drive apparatus claim 11. Consequently, recapture of any subject matter surrendered

by the amendment of patent claims 1, 7 and 11 is not an issue here--the subject matter of the patent claims is wholly different from the subject matter of the apparatus and method reissue claims 16-54 now pending.

Third, the Examiner supports this rejection under 35 U.S.C. §251 by asserting that the amendment of claims 1, 7 and 11 in Applicant's patent surrendered "the broader scope" in "the application for patent", and that the broader scope "cannot be recaptured by the filing of the present reissue application." The Examiner relies upon decisions such as *Pannu v. Storz*, 258 F.3d 1366 (Fed. Cir. 2001) and *Hester Industries, Inc. v. Stein, Inc.*, 46 USP2d 1641 (Fed. Cir. 1998) to buttress the Examiner's assertion. In Paper No. 5 issued on the 30th of December 1998, the Examiner rejected claims 1, 7, 11 and 12 under 35 U.S.C. §102(b) as anticipated by Gold '545. Subsequently, in Applicant's responsive amendment filed on the 29th day of March 1999, Applicant "amended the independent claims 1, 7, and 11 to incorporate feature of allowable claims 2, 8, and 13, respectively." Additionally, Applicant expressly noted that there was no anticipation under 35 U.S.C. §102(b) "unless all of the elements of a claim are found in exactly the same situation and united in the same way in a single prior art reference, and thus every element must be literally present and must also be arranged as in the claim", (See Paper No. 6, Pg. 8, and then explain that the Examiner "appears to be misapplying the facts to Gold '545 here" because "the first address mark (AM) is included within the ID header 22 and is not considered to be a *data* address mark" while the "second address mark (AM) is included within the *data* header 24 is considered to be a *data* address mark." Applicant concluded the explanation of a lack of anticipation by explaining to the Examiner that "Gold '545 does not teach or suggest a recording of a data address mark in two locations, as set forth in

Applicant's independent claims 1, 7, and 11." Applicant's remarks, amendment of 29 March 1998, pg. 8. In summary, Applicant made no surrender, identified the impropriety of the Examiner's anticipation rejection and in compliance with 37 CFR §1.111(a) and (b), pointed out the specific distinctions that rendered those claims patentable over Gold '545. The fact that Applicant identified the Examiner's misapplication of the facts of Gold '545 does not constitute surrender of either the scope or breadth of the subject matter defined by claims 1, 7 and 11. Applicant presented no argument in the demonstration of the Examiner's misapplication of Gold '545 that the amendment itself patentably distinguished any of the amended claims over Gold '545. Applicant instead presented a factual basis for the impropriety of the anticipation rejection of those claims based upon the language of claims 1, 7 and 11 as rejected. Consequently, there was neither argument nor amendment to narrow the scope of claims 1, 7 and 11 in order to overcome the prior art. Absent argument and amendment to overcome the prior art, there is no surrender. Amendment of claims 1, 7 and 11 for reason other than an effort to overcome the prior art is irrelevant in applying the doctrine of reissue recapture. Consequently, absent surrender, the condition precedent to invocation of the doctrine of reissue recapture does not exist; withdrawal of this rejection is therefore required.

Rejection of Claims 43 and 51 under 35 U.S.C. § 102(e) as anticipated by Gold U.S. 5,231,545

In paragraph 4 of the Office action, the Examiner rejected claims 43 and 51 under 35 U.S.C. §102(b) as alleged anticipated by Gold U.S. Patent No. 5,231,545. Applicant respectfully traverses this rejection for the following reasons.

Claim 43

The Examiner asserts, in support of this rejection, that:

> "Gold teaches a disk drive device comprising a magnetic recording medium having at least one data block (data block 1) that includes at least a first data address mark (AM) and a second data address mark (AM) separately marking the data block with servo information area (28) between first and second data address mark and a controller (AM decoder/data sequencer) configured to read with the at least one of the first and second data address marks. See fig. 1A, 4A, and 5."

Although Applicant disagrees with the Examiner's interpretation of Gold '545, Applicant notes that claim 43 contains a single typographic error; claim 43 is amended to insert "no" in the phrase "with no servo information area", to correct that typographic error. This conforms with other pending claims, such as device claim 43, line 3. The correction of this typographic error removes any basis for asserting anticipation. Withdrawal of this rejection is therefore respectfully requested.

Claim 51

In support of the rejection of claim 51, the Examiner wrote that:

> "Gold teaches a disk drive device comprising a head (166a) positioned to read, within at least one data block of a recording medium (162), a first data address mark (AM) and a second address mark (AM) separately marking the data block and a controller (AM decoder/sequencer) regulating movement of the head based on at least on [*sic*, "one"] of the first and second data address mark. See figs. 1A, 4A and 5."

Gold is inapposite to Applicant's invention defined by claim 51, as is demonstrated by the following analysis of Gold '545.

The fallacy in the Examiner's argument is that the Examiner's interpretation of Gold '545 is not only wholly absent from Gold '545, but is contrary to the express teachings of Gold '545. As clearly shown in Figure 1A cited by the Examiner, and clearly illustrated in Figure 2, as well as in

column 8, lines 61 through 65, Gold '545 nowhere discloses a first data address mark and a second data address mark in a specific data block as required by independent claim 51, and consequently never teaches two data address marks in any data block. The *data blocks* 20 in Gold '545 are clearly labeled in Figure 1A. As illustrated by Figures 1A and 2, each data block contains one ID AM (that is, an ID address mark) and one DAM (that is, one data address mark); there is no disclosure of two *DAM's* in any data block in Gold '545. Consequently, Gold '545 suffers from all of the deficiencies noted in Applicant's background discussion. Moreover, the fact that Applicant alone both recognizes those deficiencies and remedy those deficiencies by providing both first and second data address marks in each data block, serves independently as additional and convincing indicia of a lack of anticipation by Gold '545. Withdrawal of the rejection under 35 U.S.C. §102(b) is therefore required.

As earlier explained, Gold teaches only a *single* address mark in each data block. In Figures 1A and 2 illustrating the contents of each data block, Gold discloses a data address mark following an ID address mark (see rows A and B) in Fig. 2. As explained in column 8, lines 26 and 27 of Gold '545,

> "(t)he first and second pattern fields 14 and 16 **together** provide **the** address mark pattern."

As explained by Gold '545, in data block O, there are two address marks, the first being the ID address mark and the second being a data address mark, a scheme where:

> "The desired address mark pattern essentially comprises a first 7 zero pattern, immediately followed by a second 7 zero pattern." Gold '545 at column 8, lines 29-30.

Gold uses consecutive seven zero patterns for both the data address mark and the ID address mark,

as illustrated in rows A and B in Figure 2; this does not endow Gold '545 with Applicant's "*first* and *second* data address marks" as defined by the pending claims.

Fig. 1A of Gold '545 illustrates a split data block 1 with three address markers. Ostensibly, the first address marker is an ID address marker. Gold '545 contains no definition or explanation of the second and third address markers. The sole explanation of data block 1 illustrated by Fig. 1A of Gold '545 is set forth in column 7, lines 46-57. As taught by Gold '545,

> "In data block 1, the block is split into two data segments 26d and 26e. In this example, the data segment 26d contains a.g. 8 bytes of user data, while the data segment 26e contains the balance, or 540 bytes of the 512 byte block."

Gold '545 contemplates two address marks following the ID address mark, but fails to identify the nature of these address marks. Even assuming arguendo that data segment 26e is preceded by a data address mark, that second address mark does not meet Applicant's independent claim 51, or Applicant's newly presented claim 54, which defines "a second data address mark separately marking said data block;" At best, the second address mark of Gold '545 preceding "data segment 26e" (see column 7, line 55, marks not "data block 1", but nothing more than data segment 26e". This is particularly significant in the field of rotating disk memories because the marking of the data segment of a split data block does not enable the head to read the remainder of the data block stored in the preceding data field due to the constant, single direction of movement of the head.

The Examiner's earlier assertion that Gold '545 teaches a fault tolerant decoding, is false; Gold '545 expressly teaches in column 6, beginning with line 27, a bit shift correctable address mark. Consequently, there is no reason to read Gold '545 as teaching Applicant's claims 51 and 54, with "a second data address mark separately marking said data block." Withdrawal of the rejection

is therefore requested.

Absent these features, as well as the failure of the Examiner's proposed combination to either recognize or remedy such deficiencies in the art has the inability to read the data block upon encountering the failure to read the several data address mark that Applicant both recognizes and remedies by redundant data address marks, is further and persuasive evidence of non-obviousness and absence of anticipation. Consequently, withdrawal of the rejection is required.

Amendments Under 37 C.F.R. §1.173(c)

Claims 23, 28 and 43 have been amended. These amendments correct possible issues of antecedent basis, to conform to other claim language; and, in claim 43, to correct a typographic error.

Newly presented device claim 52 and method claim 53 respectively define Applicant's head position to read, "within at least one data block written in headerless servo recording format on a recording medium" and " writing within at least one data block written in a headerless servo recording format." Support for this definition is found in column 4, lines 29-31 of Applicant's patent.

Newly presented claim 54 is patterned upon rejected device claim 51. Support in the disclosure of the patent for these claims is found beginning in line 59 of column 5 and continuing through line 19 at column 6. Additionally, Figure 6 shows the detailed format of one of Applicant's two data marks in the data field which is illustrated in Figure 3, as a component of an exemplary data arcuate sector by Figure 1.

In view of the above, all claims are deemed to be allowable and this application is believed to be in condition to be passed to issue. Reconsideration of the rejections and objections is requested. Should any questions remain unresolved, the Examiner is requested to telephone Applicant's attorney.

No fee is incurred by this Substitute Amendment. Should additional fees be incurred, the Examiner is requested to treat this paragraph as a requisite petition and to charge deposit account no. 02-4943 of Applicant's undersigned attorney in the amount incurred thereby.

Respectfully submitted,

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